This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1 (currently amended). A process for producing a reactive polyurethane containing free isocyanate groups which comprises reacting a monomeric asymmetrical diisocyanate with a polyhydric alcohol, wherein:

(a) the monomeric aymmetrical diisocyanate contains at least 95% by weight of diphenylmethane-2,4'-diisocyanate (2,4'-MDI) and ~~containing~~ less than 5% by weight of 4,4'-MDI and 2,2'-MDI, the 2,2'-MDI content being under 0.4%, is used as the monomeric asymmetrical diisocyanate;

(b) at least one diol with a number average molecular weight of 60 g/mol to 2,000 g/mol is used as the polyhydric alcohol; and

(c) the ratio of isocyanate groups to hydroxyl groups is a value of 1.05:1 to 2.0:1.

2 (original). A process as claimed in claim 1, wherein the reactive polyurethane has a Brookfield viscosity at 100°C, as measured by ISO 2555, in the range from 20 mPas to 3,000 mPas.

3 (original). A process as claimed in claim 1, wherein the content of monomeric asymmetrical diisocyanate in the reactive polyurethane is at most 0.3% by weight.

4 (original). A process as claimed in claim 1, wherein at least one linear or lightly branched C_{2-18} alkanediol is used as the diol.

5 (original). A process as claimed in claim 1, wherein said reacting is carried out in the presence of at least one catalyst selected from the group consisting of organometallic compounds of tin, lead, iron, titanium, bismuth and zirconium.

6 (original). A process as claimed in claim 1, wherein said reacting is carried out between 30°C and 130°C in the presence of a tin(IV) compound as catalyst.

7 (original). A process as claimed in claim 1, wherein said reacting is carried out at 40 to 75°C.

8 (original). A process as claimed in claim 1, wherein the ratio of isocyanate groups to hydroxyl groups is adjusted to a value of 1.05:1 to 1.5:1.

9 (original). A process as claimed in claim 1, wherein said reacting is carried out between 25°C and 100°C.

10 (original). A process as claimed in claim 1, wherein said at least one diol contains secondary hydroxy groups.

11 (original). A process as claimed in claim 1, wherein said reacting is carried out in the presence of an aprotic solvent.

12 (currently amended). A process as claimed in claim 1, wherein said reactive polyurethane contains not more than 0.1% by weight monomeric asymmetrical diisocyanate.

13 (original). A process as claimed in claim 1, wherein the reactive polyurethane has an NCO content of from 4.5 to 10% NCO.

14 (currently amended). A process as claimed in claim 1, wherein said at least one diol has a number average molecular weight of 200 g/mol to 1,500 g/mol.

15 (original). A process as claimed in claim 1, wherein said at least one diol is a polyether.

16 (original). A process as claimed in claim 1, wherein said at least one diol is selected from the group consisting of reaction products of low molecular weight polyhydric alcohols and alkylene oxides containing 2 to 4 carbon atoms.

17 (original). A process as claimed in claim 1, wherein said at least one diol is polypropylene glycol.

18 (original). A process as claimed in claim 1, wherein the ratio of isocyanate groups to hydroxyl groups is adjusted to a value of 1.4:1 to 1.9:1.

19 (original). A process as claimed in claim 1, comprising the additional step of reacting the reactive polyurethane with a polyol.

20 (original). A process as claimed in claim 1, comprising the additional step of reacting the reactive polyurethane with a polyester polyol.

21 (original). A process as claimed in claim 1, comprising the additional step of combining the reactive polyurethane with at least one additional component selected from the group consisting of catalysts, polymeric compounds, stabilizers, adhesion-promoting additives, fillers, pigments, plasticizers, and solvents.

22 (canceled).

23 (currently amended). A process as claimed in claim 1, wherein at least one polyol selected from the group consisting of glycerol, trimethylol ethane, trimethylol propane, pentaerythritol, sugar alcohols, and polyether polyols having number average molecular weights of 100 g/mol to 1,800 g/mol formed by reacting one or more alkylene oxides with glycerol, trimethylol ethane, trimethylol propane, pentaerythritol, sugar alcohols or mixtures thereof is additionally reacted with the monomeric asymmetrical diisocyanate.

24 (original). A process as claimed in claim 1, wherein at least one polyol having a number average molecular weight of 2,000 g/mol to 20,000 g/mol selected from the group consisting of polyesters, polyethers, polyacetals, and polycarbonates is additionally reacted with the monomeric asymmetrical diisocyanate.

25-27 (canceled).